

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-8. (canceled).

9. (new): A magnetic recording medium, comprising a nonmagnetic support member made of a macromolecular film selected from a group of polyethylene naphthalate, polyethylene terephthalate, polycarbonate, and triacetate cellulose, said medium further comprising a chromium containing primer layer and a magnetic layer formed on at least one surface of said nonmagnetic support member, said chromium-containing primer layer contains chromium, and at least one type selected from a group of cobalt, beryllium, osmium, rhenium, titanium, zinc, tantalum, aluminum, molybdenum, tungsten, vanadium, iron, antimony, iridium, ruthenium, rhodium, platinum, palladium, silicon, and zirconium, and said magnetic layer comprises a ferromagnetic metal alloy containing at least cobalt, platinum, and chromium, and a nonmagnetic substance.

10. (new): A magnetic recording medium according to claim 9, wherein said nonmagnetic support member is a tape with thickness in the range of 3 - 20 μm .

11. (new): A magnetic recording medium according to claim 9, wherein said nonmagnetic support member is a disk with thickness in the range of 10 - 200 μm .

12. (new): A magnetic recording medium according to claim 9, wherein ratio of the nonmagnetic substance in the magnetic layer is in the range of 5 - 20 atom %.

13. (new): A magnetic recording medium according to claim 12, wherein said nonmagnetic substance is SiO₂.

14. (new): A magnetic recording medium according to claim 9, wherein ratio of the nonmagnetic substance in the magnetic layer is in the range of 10 - 15 atom %.

15. (new): A magnetic recording medium according to claim 14, wherein said nonmagnetic substance is SiO₂.

16. (new): A magnetic recording medium according to claim 9, wherein content ratio of chromium in the primer layer is in the range of 70 - 99 atom %.

17. (new): A magnetic recording medium according to claim 9, wherein content ratio of chromium in the primer layer is in the range of 80 - 95 atom %.

18. (new): A magnetic recording medium, comprising a nonmagnetic substance containing a macromolecular film selected from a group of polyethylene naphthalate, polyethylene terephthalate, polycarbonate, and triacetate cellulose, said medium further comprising a primer layer and a magnetic layer formed on at least one surface of the nonmagnetic substrate, said primer layer containing at least ruthenium, and said magnetic layer comprises a ferromagnetic metal alloy containing at least cobalt, platinum, and chromium, and a nonmagnetic substance.

19. (new): A magnetic recording medium according to claim 18, wherein said nonmagnetic support member is a tape with thickness in the range of 3 - 20 μm .

20. (new): A magnetic recording medium according to claim 18, wherein said nonmagnetic support member is a disk with thickness in the range of 10 - 200 μm .

21. (new): A magnetic recording medium according to claim 18, wherein ratio of the nonmagnetic substance in the magnetic layer is in the range of 5 - 20 atom %.

22. (new): A magnetic recording medium according to claim 21, wherein said nonmagnetic substance is SiO₂.

23. (new): A magnetic recording medium according to claim 18, wherein ratio of the nonmagnetic substance in the magnetic layer is in the range of 10 - 15 atom %.

24. (new): A magnetic recording medium according to claim 23, wherein said nonmagnetic substance is SiO₂.

25. (new): A magnetic recording medium according to claim 18, wherein content ratio of ruthenium in the primer layer is in the range of 70 - 99 atom %.

26. (new): A magnetic recording medium according to claim 18, wherein content ratio of ruthenium in the primer layer is in the range of 80 - 95 atom %

27. (new): A method for manufacturing a magnetic recording medium, said method comprising the steps of using a nonmagnetic support member comprising a macromolecular film selected from a group of polyethylene naphthalate, polyethylene terephthalate, polycarbonate, and triacetate cellulose, of forming a chromium-containing primer layer produced by sputtering using a target containing chromium, and at least one type selected from a group of cobalt, beryllium, osmium, rhenium, titanium, zinc, tantalum, aluminum, molybdenum, tungsten, vanadium, iron, antimony, iridium, ruthenium, rhodium, platinum, palladium, silicon, and zirconium, and of providing a magnetic layer produced by sputtering using a target comprising a ferromagnetic metal alloy and a nonmagnetic substance formed thereon.

28. (new): A method for manufacturing a magnetic recording medium according to claim 27, wherein said target for forming the primer layer is a mixture containing chromium and other elements, and said target for forming the magnetic layer is a mixture containing a ferromagnetic metal alloy and a nonmagnetic substance.

29. (new): A method for manufacturing a magnetic recording medium according to claim 28, wherein said target for forming the primer layer and said target for forming the magnetic layer are produced by hot press.

30. (new): A method for manufacturing a magnetic recording medium according to claim 27, wherein said film is transported on water-cooled rolls, and at least the primer layer and the magnetic layer are formed on the water-cooled rolls.

31. (new): A method for manufacturing a magnetic recording medium, said method comprising the steps of using a macromolecular film selected from a group of polyethylene naphthalate, polyethylene terephthalate, polycarbonate, and triacetate cellulose as the support member, of forming a primer layer by sputtering on at least one surface of the nonmagnetic support member by using a target containing at least ruthenium, and of providing a magnetic layer by sputtering thereon by using a target comprising a ferromagnetic metal alloy and a nonmagnetic substance.

32. (new): A method for manufacturing a magnetic recording medium according to claim 31, wherein said target for forming the primer layer is a mixture containing ruthenium and other elements, and said target for forming the magnetic layer is a mixture containing a ferromagnetic metal alloy and a nonmagnetic substance.

33. (new): A method for manufacturing a magnetic recording medium according to claim 32, wherein said target for forming the primer layer and said target for forming the magnetic layer are produced by hot press.

34. (new): A method for manufacturing a magnetic recording medium according to claim 31, wherein said film is transported on water-cooled rolls, and at least the primer layer and the magnetic layer are formed on the water-cooled rolls.

35. (new): A magnetic recording medium, comprising a nonmagnetic support member, and a primer layer and a magnetic layer formed on at least one surface of said nonmagnetic support member, said primer layer containing chromium, and at least one type selected from a group of cobalt, beryllium, osmium, rhenium, titanium, zinc, tantalum, aluminum, molybdenum, tungsten, vanadium, iron, antimony, iridium, ruthenium, rhodium, platinum, palladium, silicon, and zirconium, having chromium ratio in the range of 70 - 99 atom %, said magnetic layer comprising a ferromagnetic metal alloy containing at least cobalt, platinum, and chromium, and a nonmagnetic substance, and ratio of the nonmagnetic substance is in the range of 5 - 20 atom %.

36. (new): A magnetic recording medium according to claim 35, wherein said medium comprising a primer layer with ratio of chromium in the range of 80 - 95 atom %, and a magnetic layer with ratio of the nonmagnetic substance in the range of 10 - 15 weight %.

37. (new): A magnetic recording medium, comprising a nonmagnetic support member, and a primer layer and a magnetic layer formed on at least one surface of said nonmagnetic support member, said primer layer has ratio of Ru in the range of 70 - 99 atom %, and said

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magnetic layer comprising at least cobalt, platinum, and chromium, and a nonmagnetic substance, and ratio of the nonmagnetic substance is in the range of 5 - 20 atom %.

38. (new): A magnetic recording medium according to claim 37, wherein ratio of Ru on the primer layer is in the range of 80 - 95 atom %, and ratio of the nonmagnetic substance is in the range of 10 - 15 atom %.